Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Final

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**R R DONNELLEY & SONS CO GLASGOW MANUFACTURING DIVISION**
Mailing Address:	**120 Donnelley Drive, Glasgow, Kentucky 42141**
Source Name:	**Same as above**
Mailing Address:	**same as above**
Source Location:	**120 Donnelley Dr., Glasgow, Kentucky**
Permit Number:	**V-05-087**
Source A. I. #:	**84**
Activity #:	**APE20050001**
Review Type:	**PSD & Title V Renewal**
Source ID #:	**21-009-00029**
Regional Office:	**Bowling Green Regional Office** **1508 Western Avenue** **Bowling Green, KY 42104-3356** **(270) 746 - 7475**
County:	**Barren**
Application Complete Date:	**November 21, 2005**
Issuance Date:	**May 12, 2006**
Revision Date:	
Expiration Date:	**May 12, 2011**

John S. Lyons, Director
Division for Air Quality

Revised 12/09/02

TABLE OF CONTENTS

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

01 (24) **Hot Water Boiler #1**
Hot Water Boiler #2

Description:

Manufacturer:	Kewanee, 300 HP, each
Rated Capacity:	12.5 MMBTU/HR, each
Fuel:	Natural Gas
Date Commenced:	December 1969

APPLICABLE REGULATIONS:
401 KAR 61:015, Existing indirect heat exchangers, applicable to affected facilities with a capacity of 250 million BTU/hr heat input or less and constructed before April 9, 1972.

1. **Operating Limitations:** None

2. **Emission Limitations:**
401 KAR 61:015, Existing indirect heat exchangers
a. Section 4: Particulate matter emissions from each boiler shall not exceed 0.66 lbs/MM BTU actual heat input.
b. Section 4: Visible emissions from each boiler shall not exceed 40% opacity.
c. Section 5: Sulfur dioxide emissions from each boiler shall not exceed 5.33 lbs/MM BTU actual heat input.

Compliance Demonstration Method:
Compliance with the applicable limits are assumed through the combustion of natural gas or propane.

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:**
Pursuant to 401 KAR 61:015, Existing indirect heat exchangers, Section 6(5), the Cabinet may require for any indirect heat exchanger of less than 250 million BTU/hr heat input any or all the fuel monitoring required by this section. The permittee shall record the total amount of fuel burned on a monthly basis.

5. **Specific Record Keeping Requirements:** See monitoring requirements.

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:** None

8. **Alternate Operating Scenarios:** Use of propane fuel as backup fuel.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

02 (30) Offset heatset lithographic press KMMS-517
Two model MC-2000 Air Dryers manufactured by TEC Systems
Construction commenced: December 1982

03 (34) Offset heatset lithographic press KMMS-504
One model P-11-98 Air Dryer manufactured by TEC Systems
Construction commenced: May 1983

04 (35) Offset heatset lithographic press KMMS-505
One model MC-2000 Air Dryer manufactured by TEC
Construction commenced: October 1983

Control Equipment:

1. Recuperative thermal oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
2. Recuperative thermal oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991.
3. Recuperative thermal oxidizer #3, Manufactured by TEC System, Model 2-218 installed on August, 1994.
4. Regenerative thermal oxidizer #4, Manufactured by MEGTEC Systems, Model CS-300-95 installed in 2001.
5. Regenerative thermal oxidizer #5, Manufactured by TANN Corp., installed in March 2005.

Three (3) recuperative thermal oxidizers and two (2) regenerative thermal oxidizers are controlling all 14 presses in a multiplex configuration.

Destruction efficiency (Thermal Oxidizers #1-5): 97%.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances, applies to each affected facility that emits or may emit potentially hazardous matter or toxic substances.

1. Operating Limitations: see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

1. VOC Emissions Limitations: None
   To Calculate VOC Emission: see group requirements

2. Pursuant to 401 KAR 63:020, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals, and plants.

   Compliance Demonstration Method: see group requirements

3. Testing Requirements: see group requirements

4. Specific Monitoring Requirements: see group requirements

5. Specific Record Keeping Requirements: see group requirements

6. Specific Reporting Requirements: see group requirements

7. Specific Control Equipment Operating Conditions: see group requirements

8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

07 (40) Offset heatset lithographic press KMMS-532
Two model C-3800 Air Dryers manufactured by TEC Systems
Construction commenced: October 1988

08 (42) Offset heatset lithographic press KMMS-533
Two model CP-411 Air Dryers manufactured by TEC Systems
Construction commenced: October 1990

09 (43) Offset heatset lithographic press KMMS-534
Two model P-390 Air Dryers manufactured by TEC Systems
Construction commenced: September 1991

Control Equipment:

1. Recuperative thermal oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
2. Recuperative thermal oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991.
3. Recuperative thermal oxidizer #3, Manufactured by TEC System, Model 2-218 installed on August, 1994.
4. Regenerative thermal oxidizer #4, Manufactured by MEGTEC Systems, Model CS-300-95 installed in 2001.
5. Regenerative thermal oxidizer #5, Manufactured by TANN Corp., installed in March 2005.

Three (3) recuperative thermal oxidizers and two (2) regenerative thermal oxidizers are controlling all 14 presses in a multiplex configuration.

Destruction efficiency (Thermal Oxidizers #1-5): 97%.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances, applies to each affected facility that emits or may emit potentially hazardous matter or toxic substances.

1. Operating Limitations: see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

1. Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality:

   Volatile organic compound (VOC) emissions from emission point 7 shall be less than 40 tons per rolling 12-month period.

   Volatile organic compound (VOC) emissions from emission point 8 shall be less than 40 tons per rolling 12-month period.

   Volatile organic compound (VOC) emissions from emission point 9 shall be less than 40 tons per rolling 12-month period.

   Compliance Demonstration Method: see group requirements

2. Pursuant to 401 KAR 63:020, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals, and plants.

   Compliance Demonstration Method: see group requirements

3. Testing Requirements: see group requirements

4. Specific Monitoring Requirements: see group requirements

5. Specific Record Keeping Requirements: see group requirements

6. Specific Reporting Requirements: see group requirements

7. Specific Control Equipment Operating Conditions: see group requirements

8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

10 (46) Offset heatset lithographic press KMMS-535
Two model P-582 Air Dryers manufactured by TEC Systems
Construction commenced: August 1994

Control Equipment:

1. Recuperative thermal oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
2. Recuperative thermal oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991.
3. Recuperative thermal oxidizer #3, Manufactured by TEC System, Model 2-218 installed on August, 1994.
4. Regenerative thermal oxidizer #4, Manufactured by MEGTEC Systems, Model CS-300-95 installed in 2001.
5. Regenerative thermal oxidizer #5, Manufactured by TANN Corp., installed in March 2005.

Three (3) recuperative thermal oxidizers and two (2) regenerative thermal oxidizers are controlling all 14 presses in a multiplex configuration.

Destruction efficiency (Thermal Oxidizers #1-5): 97%.

APPLICABLE REGULATIONS:
401 KAR 50:012, General Application, Section 1(2)
40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).
401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances, applies to each affected facility that emits or may emit potentially hazardous matter or toxic substances.

1. Operating Limitations: see group requirements

2. Emission Limitations:

1. Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality: In August 1994, the company requested an emission reduction credit from the shut down of two presses KMMS-515 (EP #20) and KMMS-521 (EP #23).

   Volatile organic compound (VOC) emissions from emission point 10 shall be less than 53 tons per rolling 12-month period.

   Compliance Demonstration Method: see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Pursuant to 401 KAR 63:020, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals, and plants.

   Compliance Demonstration Method: see group requirements

3. **Testing Requirements:** see group requirements

4. **Specific Monitoring Requirements:** see group requirements

5. **Specific Record Keeping Requirements:** see group requirements

6. **Specific Reporting Requirements:** see group requirements

7. **Specific Control Equipment Operating Conditions:** see group requirements

8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

11 (51) Offset heatset lithographic press KMMS-536
Two model P2-135-57 Air Dryers manufactured by TEC Systems
Construction commenced: August 1996

Control Equipment:

1. Recuperative thermal oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
2. Recuperative thermal oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991.
3. Recuperative thermal oxidizer #3, Manufactured by TEC System, Model 2-218 installed on August, 1994.
4. Regenerative thermal oxidizer #4, Manufactured by MEGTEC Systems, Model CS-300-95 installed in 2001.
5. Regenerative thermal oxidizer #5, Manufactured by TANN Corp., installed in March 2005.

Three (3) recuperative thermal oxidizers and two (2) regenerative thermal oxidizers are controlling all 14 presses in a multiplex configuration.

Destruction efficiency (Thermal Oxidizers #1-5): 97%.

APPLICABLE REGULATIONS:
401 KAR 50:012, General Application, Section 1(2)
40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).
401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances, applies to each affected facility that emits or may emit potentially hazardous matter or toxic substances.

1. Operating Limitations: see group requirements

2. Emission Limitations:

1. Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality: In August 1996, the company requested an emission reduction credit from the shut down of two presses KMMS-514 (EP #21) and KMMS-516 (EP #22).

   Volatile organic compound (VOC) emissions from emission point 11 shall be less than 53 tons per rolling 12-month period.

   Compliance Demonstration Method: see group requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Pursuant to 401 KAR 63:020, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals, and plants.

   Compliance Demonstration Method: see group requirements

3. **Testing Requirements:** see group requirements

4. **Specific Monitoring Requirements:** see group requirements

5. **Specific Record Keeping Requirements:** see group requirements

6. **Specific Reporting Requirements:** see group requirements

7. **Specific Control Equipment Operating Conditions:** see group requirements

8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

13 (55) Offset heatset lithographic press KMMS-537
Two model P-390 Air Dryers manufactured by TEC Systems
Construction commenced: 2001

16 (62) Offset heatset lithographic press KMMS-538
Two P-693 Air Dryers manufactured by TEC Systems
Construction commenced: 2003

Control Equipment:

1. Recuperative thermal oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
2. Recuperative thermal oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991.
3. Recuperative thermal oxidizer #3, Manufactured by TEC System, Model 2-218 installed on August, 1994.
4. Regenerative thermal oxidizer #4, Manufactured by MEGTEC Systems, Model CS-300-95 installed in 2001.
5. Regenerative thermal oxidizer #5, Manufactured by TANN Corp., installed in March 2005.

Three (3) recuperative thermal oxidizers and two (2) regenerative thermal oxidizers are controlling all 14 presses in a multiplex configuration.

Destruction efficiency (Thermal Oxidizers #1-5): 97%.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances, applies to each affected facility that emits or may emit potentially hazardous matter or toxic substances.

1. Operating Limitations: see group requirements

2. Emission Limitations:

1. Synthetic minor limitation to preclude applicability of Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality.

   Volatile organic compound (VOC) emissions from emission point 13 shall be less than 40 tons per rolling 12-month period.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Volatile organic compound (VOC) emissions from emission point 16 shall be less than 36 tons per rolling 12-month period.

Compliance Demonstration Method: see group requirements

2. Pursuant to 401 KAR 63:020, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals, and plants.

Compliance Demonstration Method: see group requirements

3. **Testing Requirements:** see group requirements

4. **Specific Monitoring Requirements:** see group requirements

5. **Specific Record Keeping Requirements:** see group requirements

6. **Specific Reporting Requirements:** see group requirements

7. **Specific Control Equipment Operating Conditions:** see group requirements

8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

17 (64) Offset heatset lithographic press KMMS-540
Two Contiweb Ecoweb Plus 13 meter dryers
Construction commenced: March 2005

18 (65) Offset heatset lithographic press KMMS-506 with overcoater
One Thermal Electron dryer
Construction commenced: September 2005

19 (70) Offset heatset lithographic press KMMS-539
One Contiweb Ecoweb Plus 13 meter dryers
Proposed construction date: March 2006

20 (71) Offset heatset lithographic press KMMS-541
One Contiweb Ecoweb Plus 13 meter dryers
Proposed construction date: March 2006

Control Equipment:

1. Recuperative thermal oxidizer #1, Manufactured by TEC System, Model 2-174, installed on October, 1988.
2. Recuperative thermal oxidizer #2, Manufactured by TEC System, Model 2-174 installed on August, 1991.
3. Recuperative thermal oxidizer #3, Manufactured by TEC System, Model 2-218 installed on August, 1994.
4. Regenerative thermal oxidizer #4, Manufactured by MEGTEC Systems, Model CS-300-95 installed in 2001.
5. Regenerative thermal oxidizer #5, Manufactured by TANN Corp., installed in March 2005.

Three (3) recuperative thermal oxidizers and two (2) regenerative thermal oxidizers are controlling all 14 presses in a multiplex configuration.

Destruction efficiency (Thermal Oxidizers #1-5): 97%.

APPLICABLE REGULATIONS:

401 KAR 50:012, General Application, Section 1(2)

40 CFR Part 64, Compliance assurance monitoring (CAM), applies to emission unit subject to a pollutant-specific emission limitation or standard that uses a control device to achieve compliance with that pollutant-specific limitation and the pre-control device emission of that specific pollutant is equal to or greater than 100 % of the amount, in tons per year, required for a source to be classified as major source, as specified in 40 CFR 64.2 (a).

401 KAR 51:017, Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced after September 22, 1982.

401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances, applies to each affected facility that emits or may emit potentially hazardous matter or toxic substances.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations:

1. see group requirements
2. The owner or operator shall comply with the following **BACT** requirements:
   a. Thermal Oxidizer Control System shall have a minimum destruction efficiency of 97%.
   Compliance Demonstration Method:
   The average combustion chamber temperature of each component of the oxidizer system receiving emissions from the presses, for a period of 3 hours, shall not be more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer at which the minimum required destruction efficiency of 97% is demonstrated during the most recent performance test.
   b. The fountain solution as applied to the web presses shall contain no more than 2% VOC by weight.
   Compliance Demonstration Method:
   The VOC content of fountain solutions applied at each press shall be demonstrated to be no more than 2%.

   VOC content (% by weight) = 100% x **Σ [**gallons of each ingredient in the applied fountain solution x VOC content (in lbs/gal) of the ingredient**]**
   /**[**gallons of the applied fountain solution
   x density (in lbs/gal) of applied fountain solution**]**

   c. Blanket and Roller Washes – VOC composite partial vapor pressure no greater than 10 mm Hg at 20º C or 2.5 lb/gal as applied.
   Compliance Demonstration Method:
   See Specific Record Keeping Requirements

2. Emission Limitations:

1. **VOC & HAP:**
   VOC emissions based on applicability of Regulation 401 KAR 51:017 shall be less than 58 tons per rolling 12-month period.

   The total of single and combined HAP emissions from emission points 17, 18, 19 and 20 shall not exceed nine (9) tons and twenty-two and half (22.5) tons per year, respectively.

   Compliance Demonstration Method:
   a. The following formula or equivalent may be used in calculating emissions of VOC/HAP from ink:

   VOC/HAP emitted (lbs) = ∑ {pounds of ink x VOC/HAP content of ink (weight%) x 0.8 x (1-control efficiency of the thermal oxidizers}

   b. The following formula or equivalent may be used in calculating emissions of VOC/HAP from fountain solution:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VOC/HAP emitted (lbs) = ∑ {gallons of fountain solution concentrate x VOC/HAP content of fountain solution concentrate (lbs/gal) x 0.7 x (1-control efficiency of the thermal oxidizers} + ∑ {gallons of fountain solution concentrate x VOC/HAP content of fountain solution (lbs/gal) x 0.30}

c. The following formula or equivalent may be used in calculating emissions of VOC/ HAP from clean up solvent (Auto Blanket Wash ABW):
VOC/HAP emitted (lbs) = {gallons of ABW x VOC/HAP content of ABW (lbs/gal) x 0.4 x (1-control efficiency of the thermal oxidizers} + {gallons of ABW x VOC/HAP content of ABW (lbs/gal) x 0.60}

d. The following formula or equivalent may be used in calculating emissions of VOC/HAP from clean up solvent (Manual Blanket Wash MBW):
VOC/HAP emitted (lbs) = {gallons of MBW x VOC/HAP content of MBW (lbs/gal) x 0.50}

VOC/HAP emissions determined by formulas (a) through (d) or equivalent shall be summed on a monthly basis and used to demonstrate compliance with the emission limitations listed for the affected facilities.

For the formulas above, use 97% for the control efficiency of the thermal oxidizers.

The control efficiency of thermal oxidizers established during the performance test must be at least 97% as required by the CAM plan and BACT determination. The permittee shall use the data collected during each thermal oxidizer performance test to calculate and record its average combustion temperature. The obtained average combustion temperature is the minimum operating limit of the thermal oxidizer.

A control efficiency of 0% shall be assumed for all periods the thermal oxidizers are receiving emissions from the presses during which, for a period of 3 hours or more, the average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test. At such times, the control system and affected process units shall automatically cease operation. Continuing to operate with the temperature in the oxidizers more than 28°C (50°F) below the minimum required set point is considered a violation of the CAM plan and BACT determination and requires reporting.

The VOC/HAP emissions from presses shall be routed to the thermal oxidizers at all times.

2. Pursuant to 401 KAR 63:020, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals, and plants.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:
The permittee has ninety (90) days from issuance date of this permit to submit an air toxics modeling analysis, to the Division of Air Quality, to show compliance with 401 KAR 63:020, Potentially Hazardous Matter or Toxics Substances.

3. Testing Requirements: see group requirements

4. Specific Monitoring Requirements: see group requirements

5. Specific Record Keeping Requirements:
The permittee shall maintain records of the following information for each thermal oxidizer:

a. The design and/or manufacturer's specifications.
b. The operational procedures and preventive maintenance records.
c. The combustion chamber temperature for each thermal oxidizer in operation.
d. Any shut down instances caused by operation of thermal oxidizer during which the 3-hour average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test, or malfunction of the thermal oxidizers, a daily log of the following information shall be kept:
    1. Whether any air emissions were visible from the facilities associated with the thermal oxidizers.
    2. Whether visible emissions were normal for the process.
    3. The cause of the visible emissions.
    4. Any corrective action taken.
e. The permittee shall keep calendar month records of usage of inks, fountain solutions, and clean up solvents for all presses. At the end of each month, VOC and HAP emissions shall be calculated and recorded. These records shall be summarized and tons per month VOC/HAP emissions calculated and recorded . Tons VOC/HAP per 12 months shall also be recorded. The recorded tons per 12 months shall be a 12-month rolling total representing the most recent year. In addition, those records shall show compliance with VOC emission limitations listed in this permit for each synthetic minor limitation. These records, as well as purchase orders and invoices for all VOC/HAP containing materials, shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality.

6. Specific Reporting Requirements:

a. The permittee shall report any deviations from the permit requirements (including approximate length of time) by these emission units as specified in Section F.7 and F.8.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. The reporting of the following shall be done on a semi-annual basis:
   1. Monthly VOC emissions in tons.
   2. Rolling 12 month total for VOC emissions during each month.
   3. Compliance demonstration with VOC emissions limitations listed in this permit.
   4. Monthly individual HAP emissions in tons.
   5. Monthly combined HAPs emission in tons.
   6. Rolling 12 month total of individual HAP's emissions for each month.
   7. Rolling 12 month total of combined HAP's emissions for each month.
   8. Compliance demonstration with HAP emissions limitations listed in this permit.

7. Specific Control Equipment Operating Conditions: see group requirements

8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Group Requirements
List of Points (02, 03, 04, 07, 08, 09, 10, 11, 13, 16, 17, 18, 19 and 20)

1. **Operating Limitations:**
   - **a. CAM Applicability** – Thermal Oxidizer Control System shall have a minimum destruction efficiency of 97%.

     Compliance Demonstration Method:

     The average combustion chamber temperature of each component of the oxidizer system receiving emissions from the presses, for a period of 3 hours, shall not be more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer at which the minimum required destruction efficiency of 97% is demonstrated during the most recent performance test.

   - **b.** Usage rate of inks, fountain solutions, and clean up solvents containing VOC's shall be restricted so as not to exceed the emission limitations in Section B(2).

Compliance Demonstration Methods:

Toxics:

The permittee has ninety (90) days from issuance date of this permit to submit an air toxics modeling analysis, to the Division of Air Quality, to show compliance with 401 KAR 63:020, Potentially Hazardous Matter or Toxics Substances.

VOC (Not Applicable to Points #17, 18, 19, &20):

a. The following formula or equivalent may be used in calculating emissions of VOC's from ink:
   VOC emitted (lbs) = ∑ {pounds of ink x VOC content of ink (weight%) x 0.8 x (1-control efficiency of the thermal oxidizers}

b. The following formula or equivalent may be used in calculating emissions of VOC's from fountain solution:
   VOC emitted (lbs) = ∑ {gallons of fountain solution concentrate x VOC content of fountain solution concentrate (lbs/gal) x 0.7 x (1-control efficiency of the thermal oxidizers} + ∑ {gallons of fountain solution concentrate x VOC content of fountain solution (lbs/gal) x 0.30}

c. The following formula or equivalent may be used in calculating emissions of VOC's from clean up solvent (Auto Blanket Wash ABW):
   VOC emitted (lbs) = {gallons of ABW x VOC content of ABW (lbs/gal) x 0.4 x (1-control efficiency of the thermal oxidizers} + {gallons of ABW x VOC content of ABW (lbs/gal) x 0.60}

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. The following formula or equivalent may be used in calculating emissions of VOC's from clean up solvent (Manual Blanket Wash MBW):
VOC emitted (lbs) = {gallons of MBW x VOC content of MBW (lbs/gal) x 0.50}

VOC emissions determined by formulas (a) through (d) or equivalent shall be summed and used to demonstrate compliance with the emission limitations listed for each affected facility.

For the formulas above, the control efficiency of the thermal oxidizers is 97%.

The control efficiency of thermal oxidizers established during the performance test must be at least 97% as required by the CAM plan. The permittee shall use the data collected during the each thermal oxidizer performance test to calculate and record its average combustion temperature. The obtained average combustion temperature is the minimum operating limit of the thermal oxidizer.

A control efficiency of 0% shall be assumed for all periods the thermal oxidizers are receiving emissions from the presses during which, for a period of 3 hours or more, the average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test. At such times, the control system and affected process units shall automatically cease operation. Continuing to operate with the temperature in the oxidizers more than 28°C (50°F) below the minimum required set point is considered a violation of the CAM plan and requires reporting.

The VOC emissions from presses shall be routed to the thermal oxidizers at all times.

2. **Testing Requirements**: see Section D (2) – (4)

3. **Specific Monitoring Requirements:**
For an oxidizer other than catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being measured, or ±1°C, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

4. **Specific Record keeping Requirements:**
The permittee shall maintain records of the following information for each thermal oxidizer:

a. The design and/or manufacturer's specifications.
b. The operational procedures and preventive maintenance records.
c. The combustion chamber temperature for each thermal oxidizer in operation.
d. Any shut down instances caused by operation of thermal oxidizer during which the 3-hour average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test,

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

or malfunction of the thermal oxidizers, a daily log of the following information shall be kept:

1. Whether any air emissions were visible from the facilities associated with the thermal oxidizers.
2. Whether visible emissions were normal for the process.
3. The cause of the visible emissions.
4. Any corrective action taken.

f. The permittee shall keep calendar month records of usage of inks, fountain solutions, and clean up solvents for all presses. At the end of each month, VOC emissions shall be calculated and recorded. These records shall be summarized and tons per month VOC emissions calculated and recorded (see Group Requirement, Section 1). Tons VOC per 12 months shall also be recorded. The recorded tons per 12 months shall be a 12-month rolling total representing the most recent year. In addition, those records shall show compliance with VOC emission limitations listed in this permit for each synthetic minor limitation. These records, as well as purchase orders and invoices for all VOC containing materials, shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality.

5. Specific Reporting Requirements:

a. The permittee shall report any deviations from the permit requirements (including approximate length of time) by these emission units as specified in Section F.7 and F.8.

b. The reporting of the following shall be done on a semi-annual basis:

1. Monthly VOC emissions in tons.
2. Rolling 12 month total for VOC emissions during each month.
3. Compliance demonstration with VOC emissions limitations listed in this permit.

6. Specific Control Equipment Operating Conditions:

The thermal oxidizers shall be operated in accordance with standard operating practices based on generally accepted procedures, taking into account manufacturer's recommendations. See Section E for specific operating requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

12 (12) Pneumatic Paper Collection System including:

(01) Cyclone Separator #1, Installed December 1969 and modified in March 1982
(02) Cyclone Separator #2, Installed March 1978 and modified in March 1982
(03) Cyclone Separator #3, Installed May 1975 and modified in March 1982
(04) Cyclone Separator #4, Installed March 1989
(05) Cyclone Concentrator #1, Installation commenced 2001
(06) Cyclone Concentrator #2, Installation commenced 2001
(07) Cyclone Concentrator #3, Installation commenced 2001
(08) Cyclone Concentrator #4, Projected Installation Date: 2005
(09) Cyclone Concentrator #5, Projected Installation Date: 2005
(10) Cyclone Concentrator #6, Projected Installation Date: 2005

Control Equipment: None

APPLICABLE REGULATIONS:
Regulation 401 KAR 59:010, New Process Operations. The provisions of this regulation shall apply to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulate in this chapter, commenced on or after July 2, 1975.

1. Operating Limitations: None

2. Emission Limitations:
For each Cyclone:

A. 401 KAR 59:010 §3 The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

B. 401 KAR 59:010 §3 For emissions from a control device or stack the permittee shall not cause, suffer, allow, or permit the emission into the open air of particulate matter from any affected facility which in excess of the allowable, which is calculated as $E = 3.59 \times P^{0.62}$, where E is the allowable emissions rate in lbs per hour and P is the paper processing rate in tons per hour.

Compliance Demonstration Method:
The calculated average hourly particulate emissions and paper usage rates shall be monitored on a monthly basis to ensure compliance with the emission limits listed above.
The following formula or equivalent maybe be used in calculating the particulate emissions from each cyclone:

Average Particulate Emission = paper usage rate (tons per month) x particulate emission (lbs/hr) factor (lbs per ton of paper / hours of operation (hours per month).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

The emission factor shall be one (1) lb per ton of paper processed. This emission factor shall be replaced whenever an emission test or other modification, approved by the Division, is carried out for this emission point. Records of any such change in emission factor used shall be maintained at the source.

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:**
A qualitative opacity observation of this emission point shall be performed weekly when the unit is in operation. The observer shall determine if the emission point had normal visible emissions. A Method 9 reading by a certified observer shall also be performed once each calendar quarter. In addition, on any day that the qualitative reading shows opacity to be above normal, a Method 9 reading shall be performed.

5. **Specific Record Keeping Requirements:**
Records shall be maintained of all opacity measurements including date, time, and results of observations. Records of the calculated particulate emission rates, the paper usage rate, and the hours of operation shall be maintained at the source.

6. **Specific Reporting Requirements:**
The permittee shall submit quarterly reports to the Bowling Green Regional Office of exceedances of the allowable particulate emissions rate or opacity standard specified in this permit. If no such exceedances occur during a particular quarter, a report stating this shall be submitted to the regional office semiannually.

7. **Specific Control Equipment Operating Conditions:** None

8. **Alternate Operating Scenarios:** None

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	2 UV Coaters	NA
2.	2 Propane Storage Tanks	NA
3.	Hot Melt Glue Pots	NA
4.	Parts Washers	401 KAR 59:185 Sec 8(2)
5.	Roller Washers	401 KAR 59:185 Sec 8(2)
6.	3 Emergency Electrical Generators	NA
7.	Ink Jet Printers	NA
8.	Vacuum Pumps	401 KAR 59:010
9.	Preliminary Operations, including plate processor and plate maker	401 KAR 59:010
10.	Dust Collectors	401 KAR 59:010
11.	Fire Pump Diesel Engine	NA
12.	Waste Water Anaerobic Tank	NA
13.	Waste Water Pretreatment System	NA
14.	Fuel Oil Storage Tank	NA
15.	Blanket Wash Storage Tank	NA
16.	Waste Water Neutralization Tank	NA
17.	2 Waste Water Surge Tanks	NA
18.	Cooling Towers	401 KAR 63:010
19.	Dock Heaters	401 KAR 59:010

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

	Description	Generally Applicable Regulation
20.	Gasoline Storage Tank	NA
21.	3 Diesel Storage Tanks	NA
22.	Natural Gas Hot Water Boiler 2.0 MM Btu/hr	401 KAR 59:015
23.	Propane Vaporizer 1.3 MM Btu/hr	401 KAR 59:015
24.	Recovered oil tank (North Tank) 15,000 Gallon	NA
25.	Recovered oil tank (South Tank) 15,000 Gallon	NA

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. The destruction efficiency of the thermal oxidizers shall be tested within six months of the issuance of this permit and every five years or upon permit renewal using Reference Method 25A specified in Regulation 401 KAR 50:015, Documents incorporated by reference, or other method approved in the Compliance Test Protocol. On October 26 2005, the facility conducted a performance test on RTO # 1 and 5. Therefore, the facility is in compliance with this requirement.

3. If the permittee can demonstrate to the Division's satisfaction that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks, the Division will approve testing of representative stacks on case-by-case basis.

4. Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

5. In accordance with 40 CFR Part 64 – Compliance Assurance Monitoring (CAM), the RR Donnelley Glasgow Manufacturing Plant is required to submit a CAM Plan as part of the Title V permit process. This CAM Plan addresses the VOC pollution control system (PCS) consisting of one (1) MEGTEC Regenerative Thermal Oxidizers (RTO), one (1) TANN Regenerative Thermal Oxidizer, and three (3) TEC Recuperative Thermal Oxidizer, Emission Points 57, 63, 40, 43, and 46 respectively and the process units (press dryers) that vent to these devices. The PCS controls emissions from fourteen (14) heat-set web offset lithographic printing presses (Emission Points 02 KMMS-517, 03 KMMS-504, 04 KMMS-505, 07 KMMS-532, 08 KMMS-533, 09 KMMS-534, 10 KMMS-535, 11 KMMS-536, 13 KMMS-537, 16 KMMS-538, 17 KMMS-506 (future), 18 KMMS-540 (future), 19 KMMS-539, and 20 KMMS-541).
   The PCS consists of two regenerative thermal oxidizers (RTOs) and three recuperative thermal oxidizers operating in parallel along with collection ducting associated with the process devices (printing presses). Solvent vapors from the press dryers are conveyed through common ducts and into the oxidizers. Each component of the oxidizer system maintains a minimum operational combustion chamber set-point temperature at which the minimum required destruction efficiency of 97% is demonstrated through approved performance (stack) testing.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Monitoring of the PCS for compliance is accomplished by:

A. Recording the operating temperature of the PCS components
B. Periodic external inspection of collection devices and dampers for visible emissions
C. Periodic emissions performance tests as required by the Title V permit.

The elements of the monitoring approach, including indicators to be monitored, indicator ranges, and performance criteria are presented in Table I.

TABLE 1. MONITORING APPROACH FOR RTO SYSTEM

CAM Requirement	Indicator #1	Indicator #2	Indicator #3
I. Indicator	Oxidizer operating temperature.	Visual Inspection of Collection System	Performance test
Measurement Approach	Record the operating temperature of the PCS components.	Visual inspection of collection dampers, by-pass valves and PCS stacks for visible emissions.	Conduct emissions test to demonstrate compliance with permitted destruction efficiency.
II. Indicator Range	An excursion is identified as any finding that the compliance point temperatures for the PCS components does not meet the minimum temperature required by the permit at all times when collecting process solvent vapors.	An excursion is identified as any finding of visible emissions.	An excursion is identified as any finding that the oxidizer does not meet the permitted destruction efficiency.
Corrective Action	An excursion below the minimum temperature will automatically shut down the system and supported process units. This will initiate activities to correct the excursion. and may trigger a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and may trigger a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and may trigger a reporting requirement.
III. Performance Criteria			
A. Data Representativeness	The recording instrument shall be accurate to within 1.0% of temperature measured, or $\pm 1^{\circ}C$, whichever is greater.	Visual inspection logs will be maintained and audited to ensure that activity is conducted.	A test protocol shall be prepared and approved by the regulatory Agency prior to conducting the performance test.
B. Verification of Operational Status	Temperatures recorded manually, on chart paper or electronic media.	Records of the inspections conducted and observations made will be maintained in the EHS department	Not applicable.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

CAM Requirement	Indicator #1	Indicator #2	Indicator #3
C. QA/QC Practices and Criteria	Calibration check of the recording instrument will be conducted in accordance with OEM recommendations.	Not applicable.	EPA test methods approved in protocol.
D. Monitoring Frequency	Measured continuously	Weekly	Once every 5 years.
Data Collection Procedure	Automatically recorded on electronic media on a continuous basis. Data can be extracted from archives on demand.	Weekly visual inspection by a member of the EHS and/or facility maintenance department (or their designee)	Per approved test method.
Averaging Period	3 hours.	Not applicable.	Not applicable.
E. Record Keeping	Maintain records of temperature monitoring data and corrective actions taken in response to excursions for a period of 5 years.	Maintain records of the inspections and corrective actions taken in response to excursions in accordance with the compliance section of Donnelley's Preventative Maintenance (PM) program for a period of 5 years.	Maintain a copy of the test report for 5 years or until another test is conducted. Maintain records of corrective actions taken in response to excursions.
F. Reporting	Number, duration, cause of any excursion and the corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Submit test protocol to Agency as required.
Frequency	As requested by agency or in the event of excursions, semi-annually.	As requested by agency or in the event of excursions, semi-annually.	For each performance test conducted.

In addition to actions required for environmental performance, PM programs are in place that contain other items unrelated to environmental performance (e.g., operational and safety considerations). These activities will be conducted by maintenance personnel.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit written notice upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Other deviations from permit requirements shall *be included in the semiannual report required by Section F.6* [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
   f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

Division for Air Quality
Bowling Green Regional Office
1508 Western Avenue
Bowling Green, KY 42104

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

10. In accordance with 401 KAR 50:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission report is mailed to the permittee.

11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020 Section 26].

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)]

.

SECTION G - GENERAL CONDITIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].

11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or

SECTION G - GENERAL CONDITIONS (CONTINUED)

operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:

(a) Applicable requirements that are included and specifically identified in the permit and

(b) Non-applicable requirements expressly identified in this permit.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements
Pertaining to emission points 19 and 20:

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission points 19 and 20 in accordance with the terms and conditions of this permit.

1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
   a. The date when construction commenced.
   b. The date of start-up of the affected facilities listed in this permit.
   c. The date when the maximum production rate specified in the permit application was achieved.

3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.

5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration *(test)* on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G (d)7 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test

6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

SECTION G - GENERAL CONDITIONS (CONTINUED)

7. Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
   d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
   e. This requirement does not relieve the source of other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

SECTION G - GENERAL CONDITIONS (CONTINUED)

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

   RMP Reporting Center
   P.O. Box 1515
   Lanham-Seabrook, MD 20703-1515.

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None